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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,955	07/28/2003	Sanjiv Nanda	030280	6170

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QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
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CAI, WAYNE HUU

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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02/06/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kscanla@qualcomm.com  
nanm@qualcomm.com

<b>Office Action Summary</b>	Application No. 10/628,955	Applicant(s) NANDA ET AL.	
	Examiner Wayne Cai	Art Unit 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed November 21, 2007 have been fully considered but they are not persuasive.

The Applicant asserts at the second full paragraph of page 11 that the cited reference, specifically Berruto describes situations wherein the rate and protection requirements of different streams of information are determined. These streams of information are separated in different channels and are not in packets. Because this information is not packetized, this information is not and could not be assigned a transmission deadline or individually assigned transmission rates in a queue.

The Examiner respectfully disagrees. The invention of Berruto relates to radio communication system and more particularly it concerns a method of controlling transmission on the same channel of variable-rate information streams in these systems, specifically the Universal Mobile Telecommunications System (UMTS). It is importantly to note that the UMTS system is one of the 3rd generation telecommunications system in which the transmission is based on packet-switching.

Furthermore, paragraph 0043 of Berruto also teaches or suggests that the invention can be applied for services other than speech transmission, such as variable-rate data transmission in which the two streams would be represented by the data and by the signaling, or systems employing access techniques different from CDMA but

always in connection with variable-rate transmissions, e.g., PRMA (Packet Reservation Multiple Access) or ATM (Asynchronous Transfer Mode) techniques.

Based on this passage mentioned above, it is clear to one skilled in the art that the invention of Berruto not only related to speech transmission, but also data transmission, where this data transmission requires packet switching system. Hence, those streams of information as described in Berruto are considered to be packets of data. In turn, those packets of data are assigned a transmission deadline or individually assigned transmission rates in a queue as recited within claims. Thus, previous rejections were proper.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berruto (EP 0 627 827) in view of Holden (US 6,134,218) Note: Applicant's cited references.

**Regarding claims 1 and 16**, Berruto discloses in a communication system, an apparatus for determining a data rate for reverse link communication from a mobile station to a base station comprising:

means for determining packets of data for transmission from the mobile station for a number of communication services (paragraph 0011, paragraphs 0017-0018);

means for determining a transmission deadline of each of said packets of data (paragraphs 0023 and 0032);

means for determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data (paragraphs 0012, 0020, 0023 and 0032).

Berruto, however, does not expressly disclose means for arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline.

Holden discloses many dimensional congestion detection system and method. Holden also discloses means for arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline (col. 1, lines 59-67, col. 2, lines 39-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Berruto and Holden.

The motivation/suggestion for doing so would have been to allow effective use of the system resources while able to guarantee service to certain traffic classes.

**With further regard to claims 9 and 24,** Berruto also discloses determining a number of data rates for transmission of the packets of data based on the number of possible queue arrangements (paragraph 0038).

**Regarding claims 2 and 17**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses means for communicating said data rate from said mobile station to said base station (paragraph 0019).

**Regarding claims 3 and 18**, Berruto and Holden disclose all limitations recited within claims as described above. Holden also discloses means for determining duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue (col. 1, lines 59-67).

**Regarding claims 4 and 19**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses means for communicating said determined duration from said mobile station to said base station (paragraph 0012).

**Regarding claims 5 and 20**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses further comprising: means for determining whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate (paragraph 0012).

**Regarding claims 6 and 21**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses means for indicating a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate (paragraphs 0026 and 0038).

**Regarding claims 7 and 22**, Berruto and Holden disclose all limitations recited within claims as described above. Holden also discloses means for dropping at least a

packet of data of said packets of data in said queue to determine a new queue of packets of data (col. 9, lines 29-34); means for determining a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate (col. 9, lines 45-55).

**Regarding claims 8 and 23**, Berruto and Holden disclose all limitations recited within claims as described above. Holden also discloses means for determining a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue (col. 9, lines 55 - col. 10, line 9).

**Regarding claims 10 and 25**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses wherein said number of determined data rates include a required data rate (paragraph 0010), and Holden also discloses at least one congestion level data rate (col. 9, lines 4-28).

**Regarding claims 11 and 26**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses communicating said number of data rates from said mobile station to said base station (paragraphs 0010 and 0019).

**Regarding claims 12 and 27**, Berruto and Holden disclose all limitations recited within claims as described above. Holden also discloses determining duration for use of each of said determined number of data rates for transmissions of the packets of data based on the arrangement of said packets of data in said queue (col. 1, lines 59-67).

**Regarding claims 13 and 28**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses communicating said determined duration from said mobile station to said base station (paragraph 0012).

**Regarding claims 14 and 29**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses determining whether available resources allows for allocation at said base station for transmission from said mobile station at least one of said number of data rates (paragraphs 0012 and 0026).

**Regarding claims 15 and 30**, Berruto and Holden disclose all limitations recited within claims as described above. Berruto also discloses indicating to said mobile station when said determining available resources allows for allocation at said base station for transmission from said mobile station at least at one of said data rates (paragraphs 0038-0040).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday - Thursday from 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Wayne Cai  
Art Unit 2617



DUC M. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600